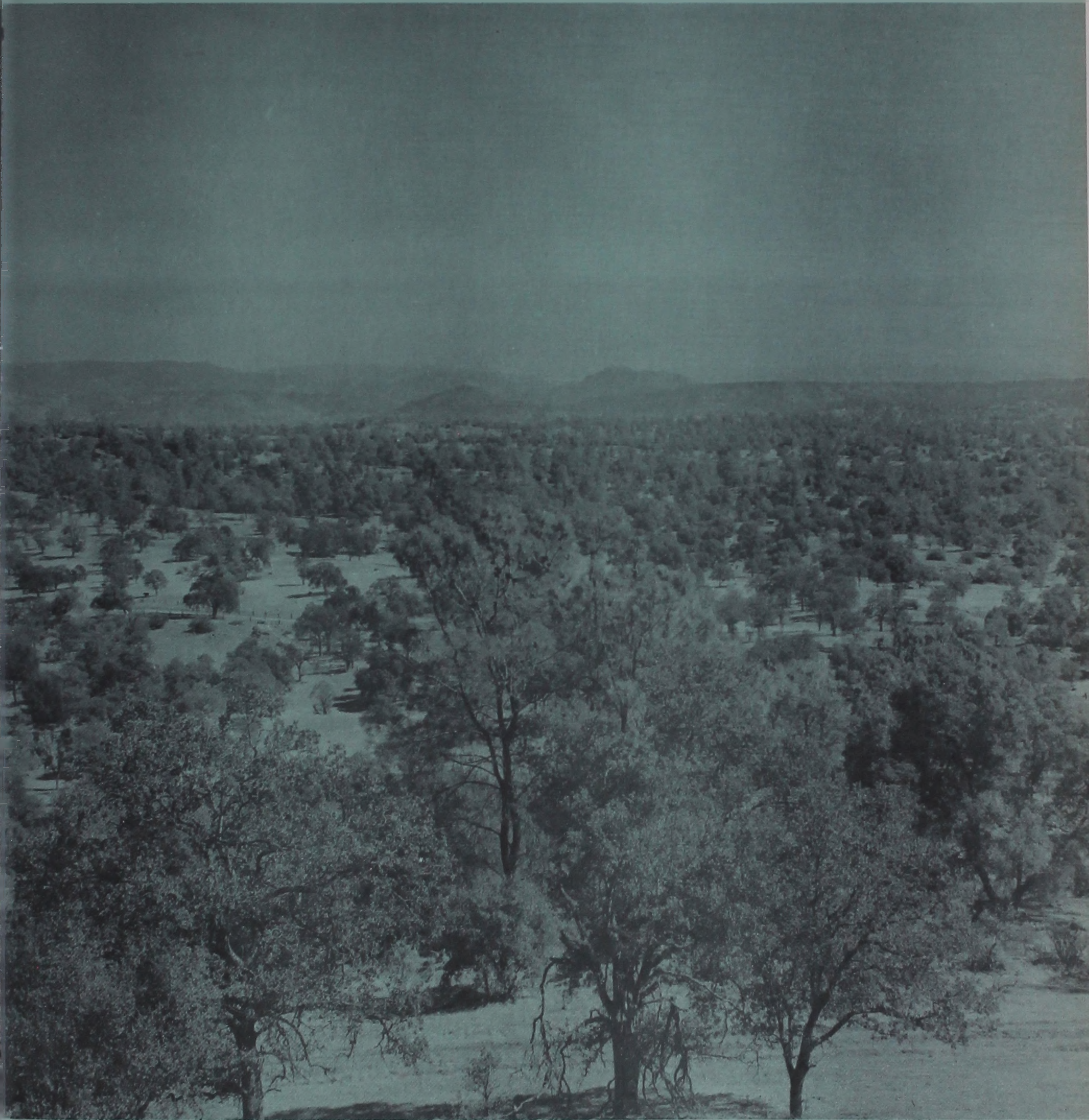


***CHECKLIST OF PLANTS* OF THE SAN JOAQUIN EXPERIMENTAL RANGE**

R. F. BUTTERY AND L. R. GREEN



MISCELLANEOUS PAPER NO. 23
CALIFORNIA FOREST AND RANGE EXPERIMENT STATION
KEITH ARNOLD, DIRECTOR
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FOREWORD

This publication is the result of the efforts of many people distributed over 23 years. The plants named herein represent 58 different families, all present in some degree on the 4600-acre San Joaquin Experimental Range. Range research on any area involves many things, but high in priority always is the discovery, identification, and evaluation of plant species. This is frequently a continuing chore because conditions favorable to all plants seldom if ever occur, and many plants are so short-lived they are difficult to find. Thus the long period required to develop this list.

It is my hope, and I know the authors concur, that this publication will be of use to technicians and administrators.

E. J. Woolfolk, Chief
Division of Range Management Research

A CHECK LIST OF PLANTS OF THE
SAN JOAQUIN EXPERIMENTAL RANGE

by

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Miscellaneous Paper No. 23

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CALIFORNIA FOREST AND RANGE EXPERIMENT STATION
BERKELEY, CALIFORNIA
FOREST SERVICE--U.S. DEPARTMENT OF AGRICULTURE

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PREFACE

The San Joaquin Experimental Range is located near the center of the State in the granite-soil section of the Sierra Nevada foothills. It is in Madera County, 28 miles north of Fresno, California. This 4600-acre experimental area was established in 1934 as a branch station of the California Forest and Range Experiment Station, U. S. Forest Service. Research aimed at increased production from California foothill range through improved management, fertilization, brush control, and livestock management has been carried out since establishment.

The area lies in the "annual grass type" and is characterized by grassy rolling hills with a sparse covering of trees and occasional dense stands of brush. It is in the lower part of the woodland zone between the treeless valley floor and the higher brush and timber belts.

The herbaceous ground cover consists mostly of annual grasses and forbs. In contrast, perennials dominate most western range areas. Ecologically speaking, the area is near the lower limits of the Upper Sonoran Zone. The elevation varies from 700 to 1700 feet, with most of the area lying between 1000 and 1500 feet. Exposures are generally southwesterly.

The drainage basin empties into a small tributary of the San Joaquin River. No permanent streams flow through the area, but springs are numerous and the small drainages carry surface flows during the winter months.

The slope soils are shallow, residual, of granitic origin, and are classed in the Vista series. The swale soils are deeper, alluvial, and are classed in the Visalia series. Both have a low water-holding capacity.

The climate is characterized by mild, rainy winters and hot, dry summers. Snow is rare. Seasonal precipitation usually begins in September and has averaged 19.4 inches, with extremes of 12.3 and 32.1 inches, during the past 23 years. On the average, over 70 percent of the precipitation falls during 4 months, December through March. From mid-May to mid-September there is practically no rain at all.

Seeds of most herbaceous plant species germinate with the first 1/2 to 1 inch of fall rain and grow slowly during the winter. The plants grow rapidly when warm temperatures return in March, reach maturity in April, and are mostly dry by mid-May.

Plant species listed in the text have been collected at the Range during the past 23 years. Standards of abundance for herbaceous vegetation are as follows:

Abundant -- species appears on at least 75 percent of sample quadrats.¹ Only 3 species fall in this category.

Very common -- species appears on at least 15 percent of sample quadrats. There are 18 species in this category.

Common -- species appears on at least 1 sample quadrat.

Uncommon -- species appears each year on the Range and in most pastures, but infrequently in pasture samples.

Rare -- species appears in 1 or 2 locations on the Range, or in especially favorable years, but seldom if ever in herbage samples.

All plant species listed herein were identified by the Division of Range Management Research, U. S. Forest Service, Washington, D. C. The following authority was used for recent changes in nomenclature:

Abrams, Leroy. 1951. Illustrated Flora of the Pacific States. Stanford University Press, Stanford, California.

Botanical names in parentheses are synonyms which have been used at the Range. The following source was used for common names:

Kelsey, H. P., and Dayton, W. A. 1942. Standardized Plant Names. Second Edition. J. Horace McFarland Co., Harrisburg, Pennsylvania. 675 p.

Locally well established common names are also listed for some plants.

INDEX

<u>Species</u>	<u>Family</u>	<u>Page</u>
Grasses and grass-like plants		1
Cyperaceae	Sedge	4
Gramineae	Grass	1
Juncaceae	Rush	5
Lemnaceae	Duckweed	5
Typhaceae	Cattail	1
Forbs		6
Aizoaceae	Carpetweed	8
Amaranthaceae	Amaranth	8
Asclepiadaceae	Milkweed	19
Boraginaceae	Borage	21
Campanulaceae	Bellflower	25
Caryophyllaceae	Chickweed	9
Chenopodiaceae	Goosefoot	8
Compositae	Sunflower	26
Crassulaceae	Stonecrop	12
Cruciferae	Mustard	11
Curcubitaceae	Gourd	17
Datistaceae	Datisca	17
Euphorbiaceae	Spurge	16
Gentianaceae	Gentian	19
Geraniaceae	Geranium	15
Hydrophyllaceae	Phacelia	20
Labiatae	Mint	22
Leguminosae	Pea	13
Liliaceae	Lily	6
Limnanthaceae	Meadowfoam	16
Linaceae	Flax	15
Loasaceae	Loasa	17
Lobeliaceae	Lobelia	25
Lythraceae	Loosestrife	17
Malvaceae	Mallow	17
Onagraceae	Evening primrose	17
Oxalidaceae	Oxalis	15
Papaveraceae	Poppy	10
Plantaginaceae	Plantain	25
Polemoniaceae	Phlox	20
Polygonaceae	Buckwheat	7
Polypodiaceae	Fern	6
Portulacaceae	Purslane	9
Primulaceae	Primrose	19
Ranunculaceae	Buttercup	10
Rosaceae	Rose	12
Rubiaceae	Madder	25

<u>Species</u>	<u>Family</u>	<u>Page</u>
Forbs (Continued)		
Saxifragaceae	Saxifrage	12
Scrophulariaceae	Figwort	23
Solanaceae	Nightshade	23
Umbelliferae	Parsley	18
Valerianaceae	Valerian	25
Verbenaceae	Verbena	22
Zygophyllaceae	Caltrops	16
Woody plants		
Anacardiaceae	Sumac	30
Caprifoliaceae	Honeysuckle	32
Ericaceae	Heath	31
Fagaceae	Oak	30
Hydrophyllaceae	Phacelia	31
Loranthaceae	Mistletoe	30
Pinaceae	Pine	30
Rhamnaceae	Buckthorn	31
Rubiaceae	Madder	32
Salicaceae	Willow	30
Sapindaceae	Buckeye	31

GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	Occurrence	Habitat
<u>TYPHACEAE</u> Cattail family		
<u>Typha latifolia</u> L. Common cattail Broad-leaved cattail	Rare	Wet swale
<u>GRAMINEAE</u> Grass family		
<u>Aira caryophyllea</u> L. (<u>Aspris caryophyllea</u> Nash) Silver hairgrass	Common	Slope, on shallow soil
<u>Avena barbata</u> Brot. Slender wild oat	Very common	Slope, especially south
<u>Avena fatua</u> L. Wild oat	Rare	Slope
<u>Briza minor</u> L. Little quakinggrass	Common	Swale
<u>Bromus arenarius</u> Labill. Australian brome	Common	Slope, especially south
<u>Bromus mollis</u> L. (<u>Bromus hordeaceus</u> L.) Soft brome or chess	Abundant	Slope and dry swale
<u>Bromus rigidus</u> Roth. Ripgut brome	Very common	Slope, especially shaded, and dry swale
<u>Bromus rubens</u> L. Foxtail brome Red brome	Very common	Slope, all exposures
<u>Cynodon dactylon</u> (L.) Pers. Bermuda grass	Uncommon	Wet swale
<u>Deschampsia danthonioides</u> (Trin.) Munro ex Benth. Annual hairgrass	Uncommon	Lower slope and swale
<u>Digitaria sanguinalis</u> (L.) Scop. (<u>Syntherisma sanguinalis</u> Dulac, Fl. Haut.) Hairy crabgrass	Uncommon	Gardens

GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	Occurrence	Habitat
<u>Distichlis stricta</u> (Torr.) Rydb. Inland saltgrass	Rare	Creek bank
<u>Elymus triticoides</u> Buckl. Creeping wildrye Beardless wildrye	Rare	Dry swale
<u>Eragrostis cilianensis</u> (All.) Lutati Stinkgrass	Rare	Barnyard and garden
<u>Eragrostis diffusa</u> Buckl. Spreading lovegrass	Rare	Barnyard
<u>Festuca confusa</u> Piper Klickitat fescue Hairy-leaved fescue	Uncommon	Slope
<u>Festuca grayi</u> (Abrams) Piper Gray's fescue	Common	Slope, especially south
<u>Festuca megalura</u> Nutt. Foxtail fescue	Abundant	Slope, all exposures and dry swale
<u>Festuca pacifica</u> Piper Pacific fescue	Uncommon	Slope, especially north
<u>Festuca reflexa</u> Buckl. Twoflower fescue	Uncommon	Slope, especially south
<u>Gastridium ventricosum</u> (Gouan) Schinz and Thell Nitgrass	Common	Slope, on shallow soil
<u>Hordeum brachyantherum</u> Nevski (<u>Hordeum nodosum</u> L.) Meadow barley	Uncommon	Dry swale
<u>Hordeum hystrix</u> Roth. (<u>Hordeum gussonianum</u> Parl.) Mediterranean barley	Very common	Wet swale

GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	Occurrence	Habitat
<u>Hordeum leporinum</u> Link (<u>Hordeum murinum</u> L.) Mouse barley Common foxtail	Common	Disturbed soil or lower slope
<u>Koeleria phleoides</u> (Vill.) Pers. Annual koeleria	Rare	Swale
<u>Lolium multiflorum</u> Lam. Italian ryegrass Annual ryegrass	Seeded	Swale and lower slope
<u>Melica californica</u> Scribn. California melicgrass	Uncommon	Rock outcrop
<u>Melica imperfecta</u> Trin. Coastrange melicgrass Small-flowered melicgrass	Uncommon	Rock outcrop
<u>Oryzopsis miliacea</u> (L.) Benth. Smilo	Seeded	Lower slope
<u>Panicum capillare occidentale</u> Rydb. Common witchgrass	Uncommon	Swale
<u>Phalaris californica</u> Hook. and Arn. California canarygrass	Rare	
<u>Phalaris caroliniana</u> Walt. Carolina canarygrass	Uncommon	Wet swale
<u>Phalaris coerulescens</u> Sunol grass	Seeded	Lower slope and swale
<u>Phalaris tuberosa stenoptera</u> (Hack.) Hitchc. Hardinggrass	Seeded	Swale
<u>Poa annua</u> L. Annual bluegrass	Common	Swale

GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	Occurrence	Habitat
<u>Poa scabrella</u> (Thurb.) Benth. ex Vassey Pine bluegrass	Common	Slope, especially north
<u>Polypogon monspeliensis</u> (L.) Desf. Rabbitfoot polypogon Beardgrass	Common	Creekbed
<u>Scribneria bolanderi</u> (Thurb.) Hack. Scribneria	Rare	Slope
<u>Setaria viridis</u> (L.) Beauv. Green bristlegrass	Uncommon	Gardens
<u>Sorghum halepense</u> (L.) Pers. Johnsongrass	Rare	Swale
<u>Stipa cernua</u> Stebbins and Love. Nodding stipa	Seeded	Slope
<u>Stipa pulchra</u> Hitchc. California needlegrass Purple stipa	Seeded	Slope

CYPERACEAE Sedge family

<u>Cyperus inflexus</u> Muhl. Flatsedge Awned cyperus	Uncommon	Creekbed
<u>Cyperus vegetus</u> Willd. (<u>Cyperus virens</u>) Green flatsedge Tall cyperus	Uncommon	Creekbed
<u>Eleocharis macrostachya</u> Britton (<u>Eleocharis palustris</u> R. and S.) Spikesedge Common spikerush	Common	Wet swale

GRASSES AND GRASS-LIKE PLANTS

Botanical and common name	:	Occurrence	:	Habitat
	:		:	

LEMNACEAE Duckweed family

<u>Lemna</u> sp.	Uncommon	Seep
Duckweed		

JUNCACEAE Rush family

<u>Juncus</u> <u>bufonius</u> L.	Common	Dry swale
Toad rush		

<u>Juncus</u> <u>oxymeris</u> Engelm.	Common	Wet swale
Slenderleaf rush		
Pointed rush		

<u>Juncus</u> <u>macrophyllus</u> Coville	Common	Wet swale
Long-leaved rush		

FORBS

Botanical and common name	Occurrence	Habitat
<u>POLYPODIACEAE</u> Fern family		
<u>Pityrogramma triangularis</u> (Kaulf.) Maxon (<u>Gymnogramme triangularis</u> Kaulf.) Goldfern	Common	Shaded rock outcrop
<u>Pellaea mucronata</u> (D.C. Eaton) D.C. Eaton Birdsfoot cliffbrake	Common	Shaded rock outcrop
<u>LILIACEAE</u> Lily family		
<u>Allium hyalinum</u> Curran Eldorado onion Paper-flowered onion	Uncommon	Slope
<u>Brodiaea capitata</u> Benth. (<u>Dichelostemma capitatum</u> [Benth.] Wood) Bluedicks brodiea Common brodiea	Very common	Slope
<u>Brodiaea coronaria</u> (Salisb.) Engler Harvest brodiea	Common	Swale and lower slope
<u>Brodiaea laxa</u> (Benth.) Wats. (<u>Triteleia laxa</u> Benth.) Grassnut brodiea	Uncommon	Slope
<u>Brodiaea volubilis</u> (Kell.) Baker (<u>Dichelostemma californicum</u> [Torr.] Wood) Vine brodiea Twining brodiea Snake lily	Uncommon	Steep rocky slope
<u>Calochortus luteus</u> Dougl. Yellow mariposa	Uncommon	Slope

FORBS

Botanical and common name	Occurrence	Habitat
<u>Calochortus luteus oculatus</u> Wats. Mariposa	Uncommon	Slope
<u>Chlorogalum pomeridianum</u> (DC.) Kunth. Common soapplant Amole soapplant	Common	Rock outcrop
<u>Muilla tenuis</u> Congdon (<u>Muilla maritima</u> [Torr.] Wats.) Muilla Common muilla	Common	Slope
<u>POLYGONACEAE</u> Buckwheat family		
<u>Chorizanthe membranacea</u> Benth. Pink chorizanthe Spineflower	Common	Slope, on shallow soil
<u>Chorizanthe stellulata</u> Benth. Starlet chorizanthe Spineflower	Common	Slope, on shallow soil
<u>Eriogonum gracillimum</u> Wats. Slender eriogonum	Uncommon	Slope
<u>Eriogonum nudum</u> Benth. Barestem eriogonum	Uncommon	Slope
<u>Eriogonum virgatum</u> Benth. Virgate eriogonum	Common	Slope
<u>Polygonum aviculare</u> L. Prostrate knotweed Knotweed Knotgrass	Uncommon	Barnyard and gardens
<u>Polygonum punctatum</u> Elliot (<u>Polygonum acre</u> H.B.K.) Dotted smartweed Water smartweed	Uncommon	Creekbed

FORBS

Botanical and common name	Occurrence	Habitat
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<u>Pterostegia drymarioides</u> Fisch. and Mey. Pterostegia	Common	Shaded slope
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<u>Rumex crispus</u> L. Curly dock	Common	Creekbed
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CHENOPODEACEAE Goosefoot family

<u>Chenopodium album</u> L. Lambsquarters goosefoot	Uncommon	Disturbed soil
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<u>Chenopodium ambrosioides</u> <u>chilense</u> (Schrader.) Spegaz. Wormseed goosefoot, Pigweed	Uncommon	Disturbed soil
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<u>Chenopodium leptophyllum</u> Nutt. Slimleaf goosefoot	Common	Disturbed soil
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<u>Chenopodium pumilio</u> R. Br. Goosefoot	Uncommon	Disturbed soil
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AMARANTHACEAE Amaranth family

<u>Amaranthus graecizans</u> L. Tumbleweed amaranthus Tumbling pigweed	Uncommon	Disturbed soil
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<u>Amaranthus retroflexus</u> L. Redroot amaranthus Rough pigweed	Uncommon	Disturbed soil
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AIZOACEAE Carpetweed family

<u>Mollugo verticillata</u> L. Carpetweed Indian chickweed	Uncommon	Seep
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FORBS

Botanical and common name	:	Occurrence	:	Habitat
	:		:	

PORTULACACEAE Purslane family

Calindrina caulescens
menziesii Gray
 (C. ciliata var. menziesii
 [Hook.] J.F. Macbride)
 Redmaids

Very common Slope

Montia fontana L.
 Indian lettuce
 Water chickweed

Common Wet swale

Montia perfoliata (Donn.) Howell
 Indian lettuce
 Miners' lettuce

Common Shaded slope

Portulaca oleracea L.
 Common purslane

Uncommon Gardens

CARYOPHYLLACEAE Chickweed family

Arenaria douglasii Fenzl.
 Douglas sandwort

Uncommon Slope

Cerastium viscosum L.
 Sticky cerastium
 Mouse-ear chickweed

Common Lower slope

Herniaria cinerea DC.
 Gray burstwort
 Gray herniaria

Uncommon Slope

Sagina apetala barbata Fenzl.
 Dwarf pearlwort

Uncommon Slope

Silene gallica L.
 French silene
 Common catchfly
 Windmill pink

Very common Slope

Spergula arvensis L.
 Corn spurry

Uncommon Lower slope and
 dry swale

FORBS

Botanical and common name	:	Occurrence	:	Habitat
	:		:	

<u>Spergularia marina</u> (L.) Griseb. (<u>S. salina</u> J. and C.) Saltmarsh sand spurry	Uncommon	Lower slope
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<u>Stellaria media</u> (L.) Cyrill. Chickweed	Common	Lower slope
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RANUNCULACEAE Buttercup family

<u>Delphinium decorum patens</u> (Benth.) Gray Yellowtinge larkspur Coast larkspur	Uncommon	Slope, especially north
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<u>Delphinium hanseni</u> Greene Hansen larkspur	Common	Shaded lower slope
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<u>Ranunculus aquatilis</u> L. (<u>R. aquatilis</u> var. <u>capillaceus</u> [Thuill.] DC.) Watercrowfoot buttercup Water buttercup	Common	Creekbed
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<u>Ranunculus californicus</u> Benth. California buttercup	Common	Wet swale
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<u>Ranunculus hebecarpus</u> Hook. and Arn. Pubescent-fruited buttercup	Uncommon	Shady slope
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PAPAVERACEAE Poppy family

<u>Eschscholtzia caespitosa</u> Benth. Gold poppy	Uncommon	Slope, especially south
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<u>Eschscholtzia californica</u> Cham. California poppy	Common	Slope, especially south
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<u>Eschscholtzia lobbii</u> Greene Fryingpans	Common	Slope
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FORBS

Botanical and common name	Occurrence	Habitat
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<u>Papaver heterophyllum</u> (Benth.) Greene Wind poppy	Uncommon	Shady north slope
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<u>Platystemon californicus</u> Benth. Creamcups platystemon	Common	Creekbank
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CRUCIFERAE Mustard family

<u>Arabis maxima</u> Greene (<u>Arabis arcuata</u> Gray (<u>Arabis holboellii</u> var. <u>arcuata</u> Jepson) Rockcress	Uncommon	Rocky slope
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<u>Athysanus pusillus</u> (Hook.) Greene Dwarf athysanus	Common	Slope
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<u>Capsella bursa-pastoris</u> (L.) Medic. Shepherdspurse	Common	Slope
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<u>Lepidium nitidum</u> Nutt. Tongue pepperweed Shining peppergrass	Common	Swale
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<u>Radicula nasturtium-</u> <u>aquaticum</u> (L.) Britt. and Rendle Watercress	Uncommon	Seep
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<u>Sinapsis arvensis</u> L. (<u>Brassica arvensis</u> [L.] B.S.P.) Field charlock	Uncommon	Creekbank
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<u>Streptanthus coulteri</u> (Wats.) Greene Twistflower	Common	Slope
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<u>Streptanthus diversifolius</u> Wats. Varied-leaved streptanthus	Uncommon	Slope
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FORBS

Botanical and common name	Occurrence	Habitat
<u>Streptanthus tortuosus</u> Kell. Mountain streptanthus	Uncommon	Slope
<u>Streptanthus heterophyllus</u> Nutt. San Diego streptanthus	Uncommon	Slope
<u>Thysanocarpus curvipes</u> Hook. Hairy fringe-pod	Common	Slope
<u>Tropidocarpum gracile</u> Hook. Dobie pod	Common	Slope
<u>CRASSULACEAE</u> Stonecrop family		
<u>Tillaea erecta</u> Hook. and Arn. Sand pygmyweed	Very common	Slope
<u>SAXIFRAGACEAE</u> Saxifrage family		
<u>Lithophragma heterophylla</u> (Hook. and Arn.) Torr. and Gray. Hillstar	Common	Shady north slope
<u>Saxifraga californica</u> Greene California saxifrage	Uncommon	Slope, especially north
<u>Saxifraga integrifolia</u> Hook. Hooker's saxifrage	Uncommon	Slope, especially north
<u>ROSACEAE</u> Rose family		
<u>Alchemilla occidentalis</u> Nutt. (<u>A. arvensis</u> [L.] Scop.) Field ladysmantle Western ladysmantle	Common	Slope

FORBS

Botanical and common name	Occurrence	Habitat
<u>LEGUMINOSAE</u> Pea family		
<u>Astragalus asymmetricus</u> Sheldon (<u>A. leucophyllus</u> Torr. and Gray) Woolyleaf loco San Joaquin locoweed	Rare	Slope
<u>Astragalus gambellianus</u> Sheldon (<u>A. nigrescens</u> Nutt.) Gambel's dwarf locoweed	Common	Slope, especially south
<u>Lotus americanus</u> (Nutt.) Bisch. (<u>Hosackia americana</u> [Nutt.] Piper) Spanish clover Deervetch	Very common	Lower slope
<u>Lotus argophyllus decorus</u> (Jtn.) Ottley (<u>Hosackia argophylla</u> Gray) Silver deervetch	Uncommon	Slope
<u>Lotus micranthus</u> Benth. (<u>Hosackia parviflora</u> Benth.) Littleflower deervetch	Uncommon	Slope
<u>Lotus scoparius</u> (Nutt.) Ottley (<u>Hosackia glabra</u> [Vogel] Torr.) Broom deervetch Deerweed	Uncommon	Slope, especially north
<u>Lotus strigosus</u> (Nutt.) Greene (<u>Hosackia strigosa</u> Nutt.) Fine-leaved deervetch	Common	Slope, especially south
<u>Lotus subpinnatus</u> Lag. (<u>Hosackia subpinnata</u> [Lag.] Torr. and Gray) Chilean deervetch Hairy lotus	Common	Slope
<u>Lupinus albifrons</u> Benth. Whiteface lupine Bush lupine	Common	Rocky slope

FORBS

Botanical and common name	Occurrence	Habitat
<u>Lupinus benthami</u> Hel. Spider lupine Bentham's lupine	Common	Slope
<u>Lupinus bicolor</u> Lindl. Bicolor lupine Ground lupine	Very common	Slope
<u>Lupinus densiflorus</u> Benth. Gully lupine Dense-flowered lupine	Uncommon	Slope
<u>Lupinus formosus</u> Greene Lunara lupine Summer lupine	Common	Slope
<u>Lupinus nanus</u> Dougl. Sky lupine	Uncommon	Slope
<u>Medicago apiculata</u> Willd. Smoothbur medic	Uncommon	Lower slope and dry swale
<u>Medicago hispida</u> Gaertn. California burclover	Uncommon, except as seeded	Lower slope and dry swale
<u>Trifolium albopurpureum</u> Torr. and Gray. Rancheria clover Indian clover	Uncommon	Slope
<u>Trifolium amplexans</u> Torr. and Gray. Bladder clover Pale sack clover	Uncommon	Slope
<u>Trifolium ciliolatum</u> Benth. (<u>Trifolium ciliatum</u> Nutt.) Foothill clover Tree clover	Common	Lower slope
<u>Trifolium depauperatum</u> Depauperate clover Dwarf sack clover	Uncommon	Slope

FORBS

Botanical and common name	Occurrence	Habitat
<u>Trifolium dichotomum</u> Hook. and Arn. Branched Indian clover	Uncommon	Slope, especially north
<u>Trifolium hirtum</u> All. Rose clover	Where seeded	Lower slope
<u>Trifolium incarnatum</u> Crimson clover	Where seeded	Dry swale
<u>Trifolium microcephalum</u> Pursh. Littlehead clover	Very common	Slope
<u>Trifolium obtusiflorum</u> Hook. Clammy clover Creek clover	Uncommon	Creekbed
<u>Trifolium subterraneum</u> Subterranean clover	Where seeded	Dry swale
<u>Trifolium tridentatum</u> Lindl. Tomcat clover	Common	Lower slope
<u>Trifolium variegatum</u> Nutt. Whitetip clover	Very common	Wet swale
<u>LINACEAE</u> Flax family		
<u>Linum usitatissimum</u> L. Common flax	Uncommon	Slope
<u>OXALIDACEAE</u> Oxalis family		
<u>Oxalis corniculata</u> L. Creeping oxalis Woodsorrel	Uncommon	Gardens and shaded slope
<u>GERANIACEAE</u> Geranium family		
<u>Erodium botrys</u> Bertol. Big heronbill Broadleaf filaree	Abundant	Slope and dry swale

FORBS

Botanical and common name	Occurrence	Habitat
<u>Erodium cicutarium</u> L'Her. Alfileria Redstem filaree	Common	Lower slope
<u>Erodium obtusiplicatum</u> (Maire, Weiller and Wilczek) J.T. Howell (<u>E. botrys</u> f. <u>montanum</u> Brumhard) Big heronbill Broadleaf filaree	Very common	Slope
<u>Erodium moschatum</u> L'Her. Musk heronbill Whitestem filaree	Uncommon	Lower slope
<u>Geranium carolinianum</u> L. Carolina geranium	Uncommon	Lower slope
<u>Geranium sphaerospermum</u> Fern. Geranium	Uncommon	Lower slope
<u>LIMNANTHACEAE</u> Meadowfoam family		
<u>Limnanthes douglasi</u> R. Br. Douglas meadowfoam	Common	Creekbank
<u>Limnanthes montana</u> Mountain meadowfoam	Uncommon	Creekbank
<u>EUPHORBIACEAE</u> Spurge family		
<u>Euphorbia ocellata</u> D. and H. Euphorbia	Common	Slope
<u>ZYGOPHYLLACEAE</u> Caltrops family		
<u>Tribulus terrestris</u> L. Puncturevine Goathead	Rare	Disturbed soil

FORBS

Botanical and common name	Occurrence	Habitat
<u>MALVACEAE</u> Mallow family		
<u>Malva parviflora</u> L. Little mallow Cheeseweed	Uncommon	Disturbed soil
<u>Sidalcea hartwegii</u> Gray Checkermallow	Common	Lower slope and swale
<u>LOASACEAE</u> Loasa family		
<u>Mentzelia lindleyi</u> T. and G. Lindley mentzelia	Rare	Slope, especially south
<u>DATISCACEAE</u> Datisca family		
<u>Datisca glomerata</u> Brew. and Wats. Durangoroot	Rare	Creekbed
<u>CUCURBITACEAE</u> Gourd family		
<u>Cucurbita foetidissima</u> H.B.K. Calabazilla	Rare	Slope
<u>Echinocystis fabacea</u> Naud. Mockcucumber	Common	Slope, climbing on shrubs
<u>Echinocystis macrocarpa</u> Greene Chilicothe mockcucumber	Common	Slope, climbing on shrubs
<u>LYTHRACEAE</u> Loosestrife family		
<u>Lythrum hyssipifolia</u> L. Hyssop lythrum Loosestrife	Common	Swale, especially on disturbed soil
<u>ONAGRACEAE</u> Evening primrose family		
<u>Boisduvalia densiflora</u> (Lindl.) Wats. Dense spikeprimrose	Uncommon	Swale

FORBS

Botanical and common name	Occurrence	Habitat
<u>Boisduvalia stricta</u> (Gray) Greene Brook spikeprimrose	Uncommon	Swale
<u>Epilobium paniculatum</u> Nutt. Autumn willowweed	Uncommon	Slope
<u>Clarkia dudleyana</u> Abrams (<u>Godetia dudleyana</u> Abrams) Dudley's godetia	Common	Slope, especially north
<u>Clarkia elegans</u> Dougl. Rose clarkia	Common	Slope, especially north
<u>Clarkia nitens</u> Lewis and Lewis (<u>Godetia nitens</u>) Clarkia	Common	Slope
<u>Clarkia purpurea quadrivulnera</u> (Dougl.) Lewis and Lewis (<u>Godetia quadrivulnera</u> [Dougl.] Spach.) Clarkia	Uncommon	Slope
<u>Clarkia williamsonii</u> (Durand and Hilgard) Lewis and Lewis (<u>Godetia viminea</u> Spach.) Orchid godetia	Common	Slope, especially north
<u>Oenothera dentata</u> Cav. Field primrose	Common	Slope, especially south
<u>Oenothera graciflora</u> Hook. and Arn. Slender primrose	Common	Lower slope
<u>UMBELLIFERAE</u> Parsley family		
<u>Daucus pusillus</u> Michx. Southwestern carrot Rattlesnake weed	Common	Slope
<u>Eryngium globosum</u> Jepson Button snakeweed	Common	Swale

FORBS

Botanical and common name	Occurrence	Habitat
<u>Lomatium utriculatum</u> (Nutt.) Colt and Rose (<u>Cogswellia</u>) Common lomatium	Uncommon	Slope, especially north
<u>Perideridia pringlei</u> (C. and R.) Nels. and Macbr. (<u>Eulophus pringlei</u> C. and R.) Pringle's yampah	Rare	Slope
<u>Sanicula bipinnatifida</u> Dougl. Purple sanicle	Common	Slope
<u>Sanicula tuberosa</u> Torr. Tuber sanicle	Common	Rock outcrop
<u>PRIMULACEAE</u> Primrose family		
<u>Dodecatheon patulum</u> Greene Dwarf shootingstar	Uncommon	Shaded slope
<u>GENTIANACEAE</u> Gentian family		
<u>Centaurium venustum</u> (Gray) Rob. Pink centaurium	Common	Dry swale
<u>ASCLEPIADACEAE</u> Milkweed family		
<u>Asclepias cordifolia</u> (Benth.) Jepson Purple milkweed	Uncommon	Slope
<u>Asclepias mexicana</u> Cav. Mexican milkweed	Uncommon	Dry swale or lower slope
<u>Asclepias vestita</u> Hook. and Arn. Wooly milkweed	Common	Slope

FORBS

Botanical and common name	Occurrence	Habitat
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POLEMONIACEAE Phlox family

Eriastrum pluriflorum (Heller)
H. L. Mason
(Gilia brauntonii Jepson and
Mason)
Gilia

Uncommon

Slope, on
shallow soil

Gilia capitata Dougl.
Globe gilia

Uncommon

Slope

Gilia tricolor Benth.
Birdseye gilia

Very common

Slope

Linanthus bicolor (Nutt.) Greene
Bicolored linanthus

Common

Slope

Linanthus ciliatus (Benth.)
Greene
Bristly-leaved linanthus

Common

Slope

Linanthus dichotomus Benth.
Eveningsnow linanthus

Uncommon

Slope, especially
north

Linanthus filipes (Benth.)
Greene
Filiform linanthus

Common

Slope, on
shallow soil

Linanthus serrulatus Greene
Madera linanthus

Uncommon

Slope, especially
north

Navarretia pubescens (Benth.)
Hook. and Arn.
Downy navarretia

Common

Slope, on
shallow soil

HYDROPHYLLACEAE Phacelia family

Nemophila aurita Lindl.
Purple nemophila

Uncommon

Shaded slope

Nemophila heterophylla F. and M.
Small white nemophila

Common

Shaded slope

FORBS

Botanical and common name	Occurrence	Habitat
<u>Nemophila maculata</u> Benth. Spotted nemophila Fivespot nemophila	Uncommon	Creekbank
<u>Nemophila menziesii</u> Hook. and Arn. Babyblue-eyes nemophila	Common	Lower slope
<u>Phacelia californica</u> Cham. California phacelia	Uncommon	Rock outcrop
<u>Phacelia hispida</u> Gray Caterpillar phacelia	Common	Rock outcrop
<u>Phacelia platyloba</u> Gray Broadlobed phacelia	Uncommon	Shaded slope
<u>BORAGINACEAE</u> Borage family		
<u>Allocarya trachycarpa</u> (Gray) Greene Rough-fruited allocarya	Common	Wet swale
<u>Amsinckia douglasiana</u> DC. Douglas fiddleneck	Common	Shaded slope
<u>Amsinckia intermedia</u> Fisch. and Mey. Fireweed fiddleneck	Common	Slope
<u>Amsinckia retrorsa</u> Suksd. Rigid fiddleneck Harvest fireweed	Uncommon	Slope
<u>Cryptantha flaccida</u> (Dougl.) Greene Cryptantha	Common	Slope
<u>Cryptantha hooveri</u> I. M. Johnston Hoover's cryptantha	Uncommon	Slope
<u>Heliotropium curassauicum</u> L. Salt heliotrope	Rare	Disturbed soil

FORBS

Botanical and common name	Occurrence	Habitat
<u>Plagiobothrys canescens</u> Benth. Valley popcornflower	Common	Lower slope and dry swale
<u>Plagiobothrys nothofulvus</u> Gray Redstain popcornflower	Very common	Slope and dry swale
<u>Plagiobothrys tenellus</u> Gray Slender popcornflower	Common	Slope, on shallow soil
<u>VERBENACEAE</u> Verbena family		
<u>Verbena lasiostachys</u> Link. (<u>Verbena prostrata</u> R. Br.) Western verbena	Uncommon	Slope
<u>LABIATAE</u> Mint family		
<u>Marrubium vulgare</u> L. Common hoarhound	Uncommon	Disturbed soil
<u>Monardella candicans</u> Benth. Sierra monardella	Common	Swale
<u>Monardella lanceolata</u> Gray Mustang mint	Uncommon	Swale
<u>Pogogyne douglasi</u> Benth. Douglas pogogyne	Common	Swale
<u>Salvia carduacea</u> Benth. Thistle sage	Common	Slope
<u>Salvia columbariae</u> Benth. California chia	Uncommon	Shaded slope
<u>Scutellaria bolanderi</u> Gray Bolander's skullcap	Uncommon	Wet swale and seeps
<u>Scutellaria tuberosa</u> Benth. Tuberous skullcap	Uncommon	Shaded slope

FORBS

Botanical and common name	Occurrence	Habitat
<u>Stachys albens</u> Gray Whitehedge nettle	Uncommon	Seeps
<u>Trichostema lanceolatum</u> Benth. Vinegar bluecurls	Common	Slope
<u>Trichostema oblongum</u> Benth. Mountain bluecurls	Uncommon	Swale

SOLANACEAE Nightshade family

<u>Datura meteloides</u> DC. Sacred datura Tolguacha	Uncommon	Disturbed soil
<u>Nicotiana attenuata</u> Torr. Coyote tobacco	Uncommon	Disturbed soil or swale
<u>Solanum nigrum</u> L. Black nightshade	Rare	Lower slope
<u>Solanum xanthi</u> Gray Purple nightshade	Uncommon	Lower slope

SCROPHULARIACEAE Figwort family

<u>Antirrhinum cornutum</u> Benth. Spurred snapdragon	Uncommon	Slope, especially south
<u>Collinsia bartsiaefolia</u> Benth. Seaside collinsia	Uncommon	Slope
<u>Collinsia bicolor</u> Benth. Pagoda collinsia Chinese houses	Common	Shaded slope
<u>Collinsia tinctoria</u> Hartw. Brownstain collinsia Sticky Chinese houses	Uncommon	Shaded creekbed

FORBS

Botanical and common name	Occurrence	Habitat
<u>Cordylanthus compactus</u> Pennell Muleweed	Uncommon	Rocky slope
<u>Mimulus pilosus</u> (Benth.) Wats. Downy mimulus	Uncommon	Lower slope
<u>Mimulus bolanderi</u> Gray Tobacco mimulus	Uncommon	Shaded slope
<u>Mimulus floribundus</u> Dougl. Monkeyflower	Uncommon	Wet swale
<u>Mimulus nasutus</u> Greene (<u>Mimulus guttatus nasutus</u> Jepson) Common monkeyflower	Common	Wet swale
<u>Mimulus nanus</u> Hook. and Arn. Dwarf monkeyflower	Uncommon	Slope
<u>Mimulus viscidus</u> Congdon Viscid monkeyflower	Uncommon	Slope
<u>Mimulus pictus</u> (Curran) Gray Painted monkeyflower	Uncommon	Slope
<u>Orthocarpus erianthus micranthus</u> (Gray) Jepson Johnnytuck owllover	Common	Slope
<u>Orthocarpus linearilobus</u> Benth. Pallid owllover	Common	Slope
<u>Orthocarpus purpurascens</u> Benth. Escobita owllover Common owllover	Common	Slope
<u>Penstemon breviflorus</u> Lindl. Stubflower penstemon	Common	Rocky slope
<u>Scrophularia californica</u> Cham. and Sch. California figwort	Uncommon	Rock outcrop

FORBS

Botanical and common name	Occurrence	Habitat
<u>Verbascum blattaria</u> L. Moth mullein	Rare	Lower slope
<u>PLANTAGINACEAE</u> Plantain family		
<u>Plantago erecta</u> Morris Dotseed plantain	Very common	Slope
<u>RUBIACEAE</u> Madder family		
<u>Galium aparine</u> L. Catchweed bedstraw	Common	Shaded slope or swale
<u>Galium nuttalli</u> Gray Nuttall bedstraw	Uncommon	Shaded slope or swale
<u>VALERIANACEAE</u> Valerian family		
<u>Plectritis ciliosa</u> (Greene) Jepson Plectritis	Common	Shady lower slope or creekbank
<u>Plectritis macrocera</u> T. and G. Longhorn plectritis	Uncommon	Shady lower slope
<u>CAMPANULACEAE</u> Bellflower family		
<u>Githopsis specularioides</u> Nutt. Githopsis	Uncommon	Slope
<u>LOBELIACEAE</u> Lobelia family		
<u>Downingia bicornuta</u> Gray Downingia	Uncommon	Wet swale
<u>Nemacladus rigidus interior</u> Munz Nemacladus	Uncommon	Lower slope or swale

FORBS

Botanical and common name	Occurrence	Habitat
<u>COMPOSITAE</u> Sunflower family		
<u>Achillea lanulosa</u> L. Western yarrow	Uncommon	Lower slope
<u>Agoseris heterophylla</u> (Nutt.) Greene Annual agoseris	Common	Slope
<u>Anaphalis margaritacea</u> (L.) B. and H. Common pearleverlasting	Uncommon	Rocky slope
<u>Baeria chrysostoma gracilis</u> Hall Branchy goldfields	Very common	Slope
<u>Baeria uliginosa</u> (Nutt.) Gray Goldfields	Uncommon	Slope
<u>Balsamorhiza deltoidea</u> Nutt. Balsamroot	Rare	North slope
<u>Bidens frondosa</u> L. Devils beggarticks	Uncommon	Lower slope
<u>Brickellia californica</u> T. and G. Californica brikellia	Uncommon	Rocky slope
<u>Calycadenia mollis</u> Gray Rosinweed	Common	Slope
<u>Calycadenia multiglandulosa</u> DC. Rosinweed	Common	Slope
<u>Calycadenia villosa</u> DC. Rosinweed	Uncommon	Slope
<u>Centaurea melitensis</u> L. Malta centaurea Tocalote Napa thistle	Common	Slope
<u>Centromadia pungens</u> (T. and G.) Greene Common spikeweed	Uncommon	Lower slope

FORBS

Botanical and common name	Occurrence	Habitat
<u>Chaenactis glabriuscula</u> DC. Chaenactis	Common	Slope
<u>Cirsium occidentale</u> (Nutt.) Jepson Western thistle	Common	Slope
<u>Coreopsis bigelovi</u> (Gray) Hall Bigelow coreopsis	Uncommon	Shaded slope
<u>Coreopsis douglasi</u> (DC.) Hall Douglas coreopsis	Uncommon	Shaded slope
<u>Coreopsis stillmani</u> (Gray) Jepson Stillman coreopsis	Uncommon	Shaded slope
<u>Erigeron canadensis</u> L. Horseweed fleabane	Uncommon	Disturbed soil
<u>Erigeron foliosus stenophyllus</u> (Nutt.) Gray Leafy fleabane	Uncommon	Rocky slope
<u>Eriophyllum confertiflorum</u> Gray Goldenarrow eriophyllum	Common	Rocky slope
<u>Evax caulescens</u> Benth. Evax	Uncommon	Slope, on shallow soil
<u>Filago gallica</u> L. Fluffweed	Common	Slope
<u>Gnaphalium californicum</u> Gray California everlasting	Uncommon	Rocky slope
<u>Gnaphalium palustre</u> Nutt. Lowland cudweed	Uncommon	Lower slope
<u>Grindelia camporum</u> Greene Field gumweed	Uncommon	Slope, especially south

FORBS

Botanical and common name	Occurrence	Habitat
<u>Hemizonia heermannii</u> (<u>Hemizonia virgata heermannii</u> Jepson) Yellow tarweed	Very common	Lower slope and swale
<u>Hemizonia kelloggii</u> Greene (<u>Hemizonia wrightii</u> Gray) Wright's tarweed	Common	Rocky slope
<u>Hypochoeris glabra</u> L. Smooth catsear	Very common	Lower slope and dry swale
<u>Lactuca serriola</u> (<u>Lactuca scariola</u> L.) Prickly lettuce	Uncommon	Disturbed soil
<u>Layia gaillardiodes</u> Hook. and Arn. Layia	Common	Shady slope
<u>Layia pentachaeta hansenii</u> (Jepson) Keck Layia Tidytips	Common	Shady slope
<u>Lessingia germanorum vallicola</u> Cham. Lessingia	Common	Slope
<u>Lessingia</u> sp. Lessingia	Common	Slope
<u>Madia elegans densifolia</u> Jepson Madia	Uncommon	Creekbed
<u>Matricaria matricarioides</u> (Less.) Porter Pineappleweed	Uncommon	Disturbed soil
<u>Micropus californicus</u> F. and M. Micropus	Common	Slope, on shallow soil
<u>Pentachaeta exilis</u> Gray Pentachaeta	Common	Slope, on shallow soil

FORBS

Botanical and common name	Occurrence	Habitat
<u>Senecio douglasi</u> DC. Douglas groundsel	Uncommon	Slope
<u>Silybum marianum</u> (L.) Gaertn. Milkthistle	Rare	Creekbank
<u>Stephanomeria pauciflora</u> (Torr.) Nels. Wirelettuce	Uncommon	Slope
<u>Uropappus lindeyi</u> Nutt. Uropappus	Uncommon	Lower slope
<u>Xanthium canadense</u> Mill. Cocklebur	Uncommon	Creekbed

WOODY PLANTS

Botanical and common name	Occurrence	Habitat
<u>PINACEAE</u> Pine family		
<u>Pinus sabiniana</u> Dougl. Digger pine	Very common	Slope
<u>SALICACEAE</u> Willow family		
<u>Populus fremontii</u> Wats. Fremont cottonwood	Uncommon	Creekbank
<u>Salix laevigata</u> Bebb. Red willow	Uncommon	Creekbank
<u>FAGACEAE</u> Oak family		
<u>Quercus douglasii</u> Hook. and Arn. Blue oak	Very common	Slope
<u>Quercus morehus</u> Kell. Oracle oak	Rare	Slope
<u>Quercus wislizenii</u> DC. Interior live oak	Very common	Slope
<u>LORANTHACEAE</u> Mistletoe family		
<u>Arceuthobium campylopodum</u> Engelm. Western dwarf mistletoe Pine mistletoe	Common	Parasitic on digger pine
<u>Phoradendron villosum</u> Nutt. Common mistletoe	Very common	Parasitic on blue oak and live oak
<u>ANACARDIACEAE</u> Sumac family		
<u>Rhus diversiloba</u> T. and G. Pacific poisonoak	Common	Rocky slope

WOODY PLANTS

Botanical and common name	Occurrence	Habitat
<u>Rhus trilobata</u> Nutt. Skunkbush sumac Squawbush	Rare	Slope
<u>SAPINDACEAE</u> Buckeye family		
<u>Aesculus californica</u> (Spach) Nutt. California buckeye	Common	Slope
<u>RHAMNACEAE</u> Buckthorn family		
<u>Ceanothus cuneatus</u> (Hook.) Nutt. Buckbrush ceanothus Wedgeleaf ceanothus	Very common	Slope, especially north
<u>Ceanothus leucodermis</u> Greene (<u>Ceanothus divaricatus</u>) Chaparral whitethorn ceanothus	Uncommon	Slope
<u>Rhamnus californica cuspidata</u> (Greene) Wolf California buckthorn California coffeeberry	Common	Slope
<u>Rhamnus crocea ilicifolia</u> Greene Hollyleaf buckthorn Redberry buckthorn	Common	Slope
<u>ERICACEAE</u> Heath family		
<u>Arctostaphylos mariposa</u> Dudley Mariposa manzanita	Common	Rocky slope
<u>HYDROPHYLLACEAE</u> Phacelia family		
<u>Eriodictyon californicum</u> (Hook. and Arn.) Greene Yerba santa	Uncommon	Slope

WOODY PLANTS

Botanical and common name	:	Occurrence	:	Habitat
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RUBIACEAE Madder family

<u>Cephalanthus occidentalis</u> L. Common buttonbush	Uncommon	Seep
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CAPRIFOLIACEAE Honeysuckle family

<u>Lonicera interrupta</u> Benth. Chaparral honeysuckle	Rare	Slope, especially north
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<u>Sambucus caerulea</u> Raf. (<u>Sambucus glauca</u> Nutt.) Blueberry elder Blue elderberry	Uncommon	Rocky slope
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